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| APPLICATION NO.                            | FILING DATE | FIRST NAMED INVENTOR   | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|------------------------|---------------------|------------------|
| 10/023,246                                 | 12/17/2001  | Ajith Kuttannair Kumar | 20-LC-5014(320)     | 6291             |
| 29391                                      | 7590        | 06/17/2004             | EXAMINER            |                  |
| BEUSSE BROWNLEE WOLTER MORA & MAIRE, P. A. |             |                        | KIM, CHONG HWA      |                  |
| 390 NORTH ORANGE AVENUE                    |             |                        | ART UNIT            |                  |
| SUITE 2500                                 |             |                        | PAPER NUMBER        |                  |
| ORLANDO, FL 32801                          |             |                        | 3682                |                  |

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/023,246 | <b>Applicant(s)</b><br>KUMAR ET AL. |  |
|                              | <b>Examiner</b><br>Chong H. Kim      | <b>Art Unit</b><br>3682             |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 7, 17-24 and 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 and 7 is/are allowed.
- 6) ☒ Claim(s) 17-24, 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

The Examiner acknowledges the applicant's Amendment filed Apr 26, 2004 in response to the Office action made on Feb 4, 2004.

#### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 17-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 17 includes a limitation wherein the quantity of lubricant applied at the second time being varied in response to the time span between the first and second times. The specification as originally filed does not describe the quantity of lubricant being varied. Furthermore, claim 19 includes a step that senses the approaching of the end of train. Again, the specification as originally filed does not describe the sensor that senses the approaching of the end of train.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by Kumar, U.S. Patent 6,585,085.

Kumar shows, in Figs. 1-6, and discloses in Abstract, a method of applying lubricant to a rail for lubricating the rail for the passage of a succession of trains along the rail, the method comprising;

applying lubricant to a rail at a first time in response to the presence of a first train at a location along the rail;

sensing the presence of a second train at the location at a second time; and  
applying lubricant to the rail in response to the presence of the second train at the location, with the quantity of lubricant applied at the second time being varied in response to the time span between the first and second times.

5. Claims 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kumar, U.S. Patent 6,585,085.

Kumar shows, in Figs. 1-6, and discloses in Abstract, a method of applying lubricant to a rail for lubricating the rail for the passage of trains each having one or more locomotives

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constituting a consist, the consist located at a head of train at a leading end of the train, and an end of train at a trailing end of the train as the train travels along the rail, the method comprising;

sensing the presence of a train on a rail;

applying a lubricant to a section of the rail in response to the presence of the train after the consist at the head of the train has passed the section of rail;

sensing the end of train approaching the section of the rail (inherent since the sensor 18 detects or determines the presence of the wheels);

terminating the application of the lubricant to the section of rail before an end of the train passes the section of rail so that the quantity of lubricant on the section of rail is dissipated by wheels of a plurality of cars proximate the end of the train (as described in column 4, lines 35-48);

detecting the end of the train proximate a position of the rail a predetermined distance from a position of a lubricant applicator; and

terminating application of the lubricant by the lubricant applicator in response to the detection of the end of the train.

6. Claims 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Kumar.

Kumar shows, in Figs. 1-6, a wayside rail lubrication apparatus comprising;

a detection apparatus 9-11 generating a lubrication signal in response to the presence of a train on a rail;

a lubricant dispensing apparatus 12 applying lubricant to the rail in response to the lubrication signal;

a timing apparatus 20 delaying the application of the lubricant for a measured time period (inherent since measuring the speed of the train is involved) after the generation of the lubrication signal and allowing the application of the lubricant upon completion of the measured time period, the measured time period selected to be sufficiently long for a consist at a head of the train to pass the lubricant dispensing apparatus before lubricant is applied to the rail;

a train speed input to the timing apparatus for making the time period responsive to a speed of the train; and

a locomotive parameter input to the timing apparatus for making the time period responsive to one of the group of a size of a locomotive and a number of locomotives (as described in column 4 lines 3-17).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar in view of Effmert et al., DE 195549219C.

Kumar shows, in Figs. 1-6, a wayside rail lubrication apparatus for lubricating rails for the passage of trains along the rails, the apparatus comprising;

a lubricant dispensing apparatus 12 disposed along a rail for applying a lubricant to the rail in response to a lubrication signal indicative of a presence of a rail vehicle upon the rail

a bypass device 20 for preventing operation of the lubricant dispensing apparatus in spite of the presence of the lubricant signal when the bypass control signal is received;

but fails to show the bypass device being wireless communication receiver for receiving a signal from a transmitter located on a train.

Effmert et al. discloses, in Abstract, a lubrication system comprising the bypass device 40 having a communication device (transponder) located on the vehicle from controlling the bypass device from the vehicle.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made modify the bypass device of Kumar with the bypass device having the remote communication device as taught by Effmert et al. in order to provide a more reliable lubrication system wherein unnecessary lubrication on the rail can be reduced.

***Allowable Subject Matter***

9. Claims 1-4 and 7 are allowed.

***Response to Arguments***

10. Applicant's arguments with respect to claims 17 and 19 have been considered but are moot in view of the new ground(s) of rejection.

11. In response to the applicant's argument that Kumar fails to show a timing apparatus as amended in claim 21, it is the Examiner's view that the timing apparatus as recited in claim 21 is anticipated by Kumar. The lubricant dispensing apparatus of Kumar measures the presence and the speed of the train to measure the quantity of the lubricant applied to the wheels. The speed is

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defined as distance over time. Therefore, when the sensor measures the speed, it is measuring the time as well. Furthermore, the sensors 9 and 10 detect the presence and the speed of the consist and the processor calculates the response time of the spray unit to dispense the lubricant to the wheels of the first car.

### *Conclusion*

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chong H. Kim whose telephone number is (703) 305-0922. The examiner can normally be reached on Tuesday - Friday; 8:00 - 6:00.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

chk  
June 11, 2004

  
CHONG H. KIM  
PRIMARY EXAMINER